Industry 4.0 Workforce Summit Program

Thursday, October 8, 2020

8:30 - 9:00 am – Welcome, Objectives and Overview

Introduction: Dan Sayre CMC Chair - 10 minutes
Welcome: Norman Fortenberry, Sc.D. - 5 minutes
Overview: David Pistrui, Ph.D. - 15 minutes

9:00 - 10:15 am - Session I – Leveraging the Digital Domain for Workforce Development

Session Chair - David Pistrui, Ph.D., Industry Liaison, University of Detroit Mercy

Presenters - TED talk format, each person gets 15 minutes (45-minutes total)
-Irene Petrick, Ph.D., Senior Director of Innovation, Intel
-Dora Smith, Senior Director, Global Academic Programs, Siemens Digital Industries Software
-Kavita Phadke, Director of Learning and Development, Bosch USA

Respondents - Each person gives 5-minute response to one talk (15-minutes total)
-Kenneth Ball, Ph.D., Dean, Volgenau School of Engineering, George Mason
-Larry Keen, Ed.D., President, Fayetteville Technical Community College
-Tom Kelly, MBA, Executive Director and CEO, Automation Alley

General Audience - Facilitated Q&A with panelists and audience (15 minutes)

10:15 - 10:45 am Break & Mingle

The speakers and respondents will be available at stations for small group discussions.

10:45 - 12:00 am – Networking Breakout I – Scale-up Industry-Education Collaboration

Breakout Session Co-Chairs will facilitate by posing questions to kick off networking.

Question: How can industry leaders and educators scale up efforts to strengthen relationships, fortify workforce development and expand collaborations?

Participants will be given packs of Post It Notes and ask to identify key themes and concepts related to the topic they would like brought to the forefront. Post It Notes with thoughts and input will be placed on a “networking wall”. We will employ the
LUMA importance/difficulty methodology matrix as a framework for participants to place Post It Notes.

Co-Chairs will circulate the room to stimulate conversation and participation.

**Expanding Industry-Education Engagement – Room A**
Session Co-Chairs: John Healy, VP, Future of Work, Kelly Services  
Kyle Squires, Ph.D., Dean, Fulton Schools of Eng., ASU

**Planning to Build Collaborative Networks – Room B**
Session Co-Chairs: David Liaw, Corporate University Relationship Manager, Northrop Grumman  
Thor Misko, Program Director, Kern Family Foundation

**Implementation of I4.0 Curriculum & Pedagogy – Room C**
Session Co-Chairs: Keith Buffington, Dean of Engineering, Bucknell University  
Chuck Baukal, Director, John Zink Institute

**Redefining the Roles of Engineering & Technical Education – Room D**
Session Co-Chairs: Sue Ellspermann, President, Ivy Tech  
Howard Appelman, Engineer/Scientist 5, Boeing Company

12:00 – 12:30 Break & Mingle

The Co-chairs will meet to summarize outcomes from Breakout 1.

12:30 - 1:30 pm - Lunch

Host: David Pistrui, Ph.D., Industry Liaison, University of Detroit Mercy - 5 minutes

Introduction: Cynthia Murphy-Ortega, Manager, University Partnerships, Chevron - 5 minutes

Lunch Keynote - Henry Samueli, Ph.D., Chairman of the Board of Broadcom Inc. 30 minutes (30-minute talk)

Dr. Samueli will be available for individual questions, small group discussions.

1:30 – 1:40 Break & Make Way to Session II

1:40 - 3:00 pm – **Session II - Accelerating Engineering Education Reform to Meet the Demands of the Talent Pipeline**

Session Chair - Darrell Kleinke, Ph.D., Professor, University of Detroit Mercy
Co-chairs provide a summary of outcomes from breakout 1 (10 minutes)
Presenters - TED talk format, each person gets 15 minutes (45-minutes total)

Michael Arena, Ph.D., Vice President Talent & Develop., Amazon Web Services
Kyle Squires, Ph.D., Dean, Ira Fulton Schools of Eng., Arizona State University
TBD, Detroit OEM

Respondents - Each person gives 5-minute response to one talk (15-minutes total)

Donald Hutchison, MS., Dean, Macomb Community College
Paul Cohen, Ph.D., Woolard Distinguished Professor, North Carolina State Univ.
Ron Bonnstetter, Ph.D., Senior Vice President of Research, TTI Success Insights

General Audience - Facilitated Q&A with panelists and audience (10 minutes)

3:00 - 3:30 am  Break & Mingle

The speakers and respondents will be available at stations for small group discussions.

3:30 – 5:00 pm - Networking Breakout II - Accelerating Reform

Breakout Session Co-Chairs will facilitate by posing questions to kick off networking.

Question: What partnerships can be formed to accelerate engineering education reform?

Participants will be given packs of Post It Notes and ask to identify key themes and concepts related to the topic they would like brought to the forefront. Post Its Notes with thoughts and input will be placed on a “networking wall”.

Co-Chairs will circulate the room and stimulate conversation and participation.

Engineering Technology Reforms to Meet Workforce Demands – Room A

Session Co-Chairs: ETLI Session Chair, TBD
Cynthia Murphy-Ortega, Mgr., Univ. Partnerships, Chevron

ABET 4.X: Rethinking the Role of Accreditation to become a Change Agent – Room B

Session Co-Chairs: Jeffery Abell, Engineer, GM, Chair of the ABET IAC
Oscar Barton, Jr., Ph.D., Professor, George Mason University, Engineering Accreditation Commission, ABET
Mindset Matters: Influencing the Cultures of Education and Industry – Room C
Session Co-Chairs: Michael Richey, Chief Learning Scientist, Boeing Company
Mark Schuver, MS, Director, Purdue Polytonic, Online

Applying Industry 4.0 Technologies to Drive Engineering Education 4.0 – Room D
Session Co-Chairs: Michael Arena, Ph.D., Vice President Talent & Develop.,
Amazon Web Services
Shuvra Das, Professor, University of Detroit Mercy

5:00 - 5:30 am  Break & Mingle
The Co-chairs will meet to summarize outcomes from Breakout 2.

ASEE - Summit Banquet and Reception
Reception 7:00 -7:30 pm
Dinner 7:30 - 9:00 pm
Hosts: David Pistrui, Ph.D., Industry Liaison, University of Detroit Mercy
Norman Fortenberry, Sc.D., Executive Director, ASEE
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Friday, October 9, 2020

8:30 – 9:30 am - Session III - Industry 4.0 Education and Policy Perspectives

Welcome: Jacqueline El-Sayed, Ph.D., CAO, ASEE - 10 minutes

Introduction: Stephanie Adams, Ph.D., President, ASEE - 5 minutes

Speaker: Michigan Lt. Governor, Garlin Gilchrist (Proposed TBD Election Dependent) - 45 minutes (30-minute talk, 15-minute Q&A)

Wrap up: Jacqueline El-Sayed, Ph.D., CAO, ASEE

Alternative Speaker: Chad Moutray, Ph.D., Chief Economist, National Association of Manufacturers

9:30 – 10:00 Break & Mingle

10:00 - 11:30 am - A Town Hall Towards Action: Developing Education 4.0 Roadmaps*

Facilitators: David Pistrui, Ph.D., and Darrell Kleinke, Ph.D., University of Detroit Mercy

10:00 - 10:30 am Reflections, Connections and Actions

Co-Chairs will present the highlights of Ted Talks & Breakouts 1 & 2 (from Thurs.)

The Facilitators will present the highlights of the Guest Speakers (from Th & Fri)

As the highlights are presented, participants will be asked to reflect on the highlights and create an initial action plan they can take back to their institutions, along with a list of Summit contacts they’ve made that are like-minded.

Participants will be provided with a one-page worksheet to guide the process and provide a framework. We will utilize an app for voting and final data aggregation and analysis.

10:30 - 11:00 am - Sharing, Forming and Endorsing

Participants will be given the opportunity form into small groups (Communities of action COAs) around stations representing the key highlights. They will have 10 minutes to get to know others in the COAs and exchange contact information. After 10 minutes, the participants move to another station.
11:00 - 11:30 am - **Driving the Agenda to Build an Industry 4.0 Workforce**

The facilitators invite the participants to share their voice and advocate for ideas and concepts to strengthen ties between industry and education by identifying the key components that need to be advanced in order to achieve these outcomes. Ideally, the participants will reach at least one consensus on actionable concepts, activities and initiatives. Participants will be provided with a one-page worksheet to guide the process and provide a framework. Groups will work together to produce a worksheet that combines their input and thoughts.

Participants will be provided with a one-page ballot to vote on their ideas and concepts.

*We are exploring apps (including Engineering Unleashed) that could be used, not only for this session but the entire Summit.*

11:30 am - 12:15 pm - **Closing Session**

Host: David Pistrui, Ph.D. - 5 minutes

Introduction: Dan Sayre CMC Chair - 5 minutes

Speaker: Barbara Humpton, CEO, Siemens USA
Proposed - 30 minutes (20-minute talk, 10-minute Q&A)

Closing: David Pistrui, Ph.D. - 5 minutes